The GEO Group, Inc.
GLOBAL EXPERTISE IN OUTSOURCING

# 2. Project Characteristics

## a. Intent, Description, Design, & Location

The GEO Group, Inc. (GEO) is proposing to build either one or two 1500-bed facilities to accommodate the Virginia Department of Corrections' increasing prison population. In order to give the VDOC greater flexibility, we are providing two different 1500 bed designs with this proposal. Design "A", which is based on GEO's Rivers Correctional Institution, consists of five housing units containing 300 beds each. Design "B", which is "modified" Lawrenceville Correctional Center design, consists of four housing units containing 376 beds each. **A floor plan of each of these designs is provided as an attachment at the end of this section.**

Although no specific site has yet to be determined in the Mount Rogers Planning District, GEO believes the proposed designs and pricing will be adequate for this location if the environmental aspects of the selected site are comparable to those of Charlotte County. We believe either design will be suitable for the Mount Rogers Planning District; however, modifications to either design can be made to accommodate any site issues with the understanding that changes in the original designs may impact our current cost estimates.

GEO already has a suitable site available in Charlotte County for the Department's use. The proposed site is located approximately 3,000 feet Southwest of Route 47 near the community of Drakes Branch in Charlotte County, Virginia. **A map has been provided at the end of this section to indicate the location of the proposed Charlotte County site in relation to Richmond and current GEO facilities**.

The following description of the project is applicable to either design:

The 1500 bed project is designed as a "campus" of single story buildings with the exception that inmate housing units are one story with mezzanine to accommodate two-tier stacking of inmate cells. Tiered cells will be clustered around day rooms and other support functions at ground level. Medium-security inmates will be housed in 2 bed cells in general housing. In addition to general housing, there will be a special management unit for housing inmates in administrative and disciplinary segregation. As shown on the drawings included with this proposal, there is a single point of entry into the facility through a secure sally-port controlled by a central control. The pedestrian entry is controlled from a secure reception room with back up from central control and allows for the screening of staff and visitors by metal detectors before entering the facility. The project will utilize proven construction materials and systems suited to the appropriate level of security throughout the facility. The primary structure (housing buildings) will consist of insulated, reinforced pre-cast concrete or masonry at exterior walls and reinforced pre-cast concrete or masonry bearing walls with steel joists or pre-cast, concrete double tee roof structure. The structure will be supplemented with a minimum use of interior columns and

beams, where required. Other less secure buildings will be pre-engineered metal buildings with concrete masonry exterior walls and sloped pre-finished metal roofs.

All program areas in ancillary buildings will be constructed as separate security and life safety areas. Classrooms will be constructed and equipped in a traditional facility style. Inmate showers, the kitchen scullery and other wet areas will be constructed using seamless resinous coating or tile over CMU or concrete.

Security walls, either pre-cast concrete or concrete masonry will be reinforced horizontally and vertically. Non secure CMU walls will be reinforced conventionally in accordance with ACI standards. Where appropriate non-secure partitions shall be conventional dry-wall construction of fire retardant gypsum board on steel framing in non-inmate areas, CMU in inmate areas. Floors will be sealed concrete in inmate areas.

Vinyl composition tile will be used in administrative areas. Executive Offices will be carpeted with conventional, commercial grade, carpeting. Security ceilings or similar barriers will be incorporated as required where mechanical and electrical equipment such as ducts, conduit, plumbing, etc., in the wall or ceiling may be accessible to inmates. Ceilings in non-secure areas will be suspended 2'x 2' acoustical tiles. Dayroom ceilings will be gypsum board or exposed concrete tees.

Physical security will be provided at door and window openings by security frames. Security frames will be 12-gauge mild steel and have an anchorage system that is securely embedded in the concrete or masonry construction. Security hollow metal doors will be constructed of 12-gauge mild steel face plates with internal bracing which will accept the appropriate security hinges, pulls, closers, door position indicators, locks and/or locking devices. The locks, locking devices and hardware will be as manufactured by Folger Adam, Southern Steel, or Brinks; and all will be of appropriate security level. All doors, frames and hardware in cells and dayrooms will be maximum security detention grade with electro-mechanical remote release from housing control with override capabilities from central control. Security glazing will be maximum-security grade, laminated polycarbonate with a mar resistant surface.

**Other Security Features –** Pistol lockers will be provided at staff entry and inmate intake receiving area. Detention type tables and stools are provided in day rooms. Inmate dining will occur only in dayrooms or cells of the segregation units. Inmates in general housing will eat in central dining rooms.

**Visitation –** Visitors enter the visitation sector via the visitor's security corridor from Administration and Public Entrance under supervision of Central Control. Inmates enter from the main security vestibule from the security vestibule adjacent to the corridor.

**Food Service -** The receiving dock is adjacent to the fenced service yard, which is accessed through a secure vehicle sally port. The kitchen is adjacent to the receiving dock. Kitchen operations and security of the receiving dock is controlled from the kitchen office/control room.

**Medical Services** - Facility includes medical cells; inmate waiting room; nurses' station and medical records; secure medications storage; medical examination room; dental operation; emergency treatment; physician/dentist office and medical utility and storage.

**Indoor Recreation -** A multi-purpose, high bay screened recreation yard is provided in each housing unit for exercise.

**Inmate Classrooms –** General classrooms and vocational classrooms and shops are provided. Classroom will be able to accommodate computers. Office, workspace and storage are available for teachers.

**PLUMBING SYSTEMS:**

**Cells –** Inmate accessible areas will be equipped with stainless steel combination lavatory and water closets, all others will be equipped with separate vitreous china lavatory and water closet. Flush valve will be controlled by a timing device to limit the possibility of "gang flushes." Water closets will be provided with anti-flood devices. Water supply to cells will be equipped with remote control from the Housing Control Room.

**Showers -** Showers will be controlled by time-limiting push buttons and thermostatic mixing valves. Shower heads and controls will be stainless steel, wall type.

**Fire Protection System Description -** The facility will be fully sprinkled in accordance with State and Federal requirements.

**Smoke Detection** - Smoke detection systems will be provided for day room area. Each smoke zone will consist of a day room and the connected cells.

**Smoke Evacuation System -** Smoke evacuation will be via the mechanical exhaust system. A/H's will be shut off to prevent transfer of smoke

**Mechanical Systems**
Heating and cooling in housing units (cells and dayrooms), inmate programs, support and administrative areas will be provided by heating and electric cooling roof top units located in the respective zones.

Units will be fired by natural gas and the cooling capacity will be sized to 100% of load. The air handling system serving the classrooms, offices, lobby and intake will be constant volume type.

Airside economizers will be provided on air handling units over 5000 CFM. Additional ventilation will be provided in dayrooms for maintaining summer design conditions.

Toilets, storage areas, gymnasiums, corridors, mechanical rooms, sally ports, electrical rooms and shop areas will be heated and ventilated, without mechanical cooling. These areas will be served by roof top units.

Emergency Generators will be diesel engine powered and furnished with an above ground diesel fuel tank and associated transfer switch and emergency distribution panels. Emergency power shall be provided to supplement life safety and other essential systems. The other major emergency loads to be added to emergency system shall include the following:

All lighting, outdoor and indoor as per life safety requirements.

- All fans and air-handling units associated with smoke removal, ventilation and heat circulation system.
- Air conditioning in the control rooms.
- Kitchen walk-in freezer and coolers.
- All security, communications, fire alarm and other life safety systems.
- Air conditioning system in medical areas.
- Selected general purpose outlets in kitchen and medical areas**.**

**Lighting**

Lighting will generally be energy-efficient fluorescent. Lighting fixtures in cell and dayroom areas will be maximum security type fixtures appropriate for the required level of security. Lighting intensities will be in accordance listed with Illuminating Engineering Society (IES), 5$^{th}$ Edition recommendations.

In addition, lighting in inmate personal grooming areas will be a minimum of 20 foot-candles (FC). For security reasons, the minimum foot-candle level in any area will not be less than 5 FC. Emergency egress exit lighting will be provided to comply with the Life Safety Code and the State of Virginia Building Code.

**Site Lighting**

Site Lighting shall include necessary pole lighting, floodlights, and emergency power to ensure the security of the facility and the safety of the staff, both day and night. In addition to pole lighting, lighting fixtures shall be located around the perimeter of the buildings within the site for additional light around the buildings.

Exterior lighting for the outdoor recreation area and parking area will be a combination of wall mounted high-pressure sodium (HPS) and pole mounted HPS fixtures. All drives and walkways inside and outside the perimeter, including the patrol road, shall have a minimum illumination of three foot candles.

**Fire Alarm System**

The fire alarm system shall be a complete, supervised, non-coded, continuous-sounding, manual and automatic, annunciated fire alarm system. The system shall cover the entire facility and shall include, but is not limited to, the following components:

- Main fire alarm control panel
- Local fire alarm control panels
- Fire alarm annunciator
- Smoke detectors: area and duct
- Manual fire alarm stations
- Central station connections
- Audio/Visual alarm signaling devices
- Uninterruptible power supply
- Battery back-up
- Fire alarm building location light
- The fire alarm system shall be coordinated to work with the following equipment:
- Duct smoke detectors
- Fan and damper control and heating
- Ventilating and air-conditioning controls
- Water flow/alarm check valve switches
- Tamper switches
- Magnetic hold-open doors
- Smoke Dampers

**Lightning Protection**
The entire site will be interconnected by underground cable for a ground grid. The site also will be protected by lightning protection devices at each building. Surge protection will be installed on all power and signal feed routed around the site.

**CCTV and Intercom System**
An intercom system operating in conjunction with CCTV cameras and the electric door lock control system will be provided. The system will operate from a master station in the Primary Central Control Room with intercom stations provided throughout the facility. Station locations will be coordinated with the security system. A combination of gate controls, intercom systems, and closed circuit television shall be used for the site's vehicular sally port, and pedestrian sally port building entry. Central Control will be equipped with control of all locking systems of doors in the entry and corridor system. An intercom/sound system will connect all secure areas with a central monitoring station. The sound system will have a capability of monitoring sound, communicating between residents and staff. The control panel will be equipped with LED indicators that will indicate status of controlled doors, intercom stations, and CCTV stations. On activation of an intercom station or in case of emergency, the duress system, all graphic and audio monitoring will be switched to location of the activated intercom or alarm.

Through low voltage electronic circuitry the system will have the capability of both monitoring and controlling the security doors throughout the facility. All audio and fire alarm will be graphically reported and controlled from designated Control Rooms.

All major doors will be equipped with a combination of electromechanical locks and position indicators, which will indicate at the control panel of the appropriate Control Rooms if the door is closed and locked or unsecured.

A complete, integrated, communications system will be provided which will be under staff control at all times. The system will combine telephone, and intercom. A standard administrative telephone system will be provided. The intercom will be of central station type and have paging and monitoring capability.

All security monitoring and control systems will be on the emergency power system so it will remain operational in the event of a power failure. In most cases the systems will have built-in redundancies to ensure that the system(s) will function.

**Fencing Security Systems**
Primary security for the facility is provided by a perimeter outer and inner fence. An electronic detection and sensing fence security system with combinations of gate controls, intercom systems, and closed-circuit television shall be used for the site's main entry sally ports, the vehicular sally-port, and main building entry. Perimeter security alarms shall be reported to the control center site central monitoring system.

- System includes perimeter security enclosure consisting of two (2) 12 foot high galvanized, industrial grade chain link fence systems, separated by a 20 foot vegetation barrier surfaced with 2 inch crushed limestone. The inner fence and the outer fence will each include a 4' concrete "ratwall." Fence fabric will extend into concrete "ratwall" no less than 12 inches. The outside and the inside fence will have one (1) continuous coils of coiled stainless steel razor ribbon wire attached to the top of the fence by approved fasteners. The open space between fences will contain eight (8) coils of razor ribbon wire stacked against the outer fence to enhance the security perimeter.
- Mow strip and walk are included.
- The security perimeter will be equipped with electronic sensing and detection systems.

## b. Work to be Performed by Public Entity

It is necessary for a successful project that the design-build team understands and recognizes the requirements of the Owner and User of the facility. To that effect, The GEO Group, Inc. (GEO) intends to work closely with the Virginia Department of Corrections during the preparation of the design and construction documents for their input, review and approval. It is anticipated that the Virginia Department of Corrections will provide during the project development, input related but not limited to the following:

- Site review and approval
- Program requirements
- Design review and approval of schematic design, and construction documents
- Review and approval of proposed products and systems
- Monitoring and field inspections during the construction phase
- Review and approval of contractor pay application and schedule

## c. Schedule of Permits and Approvals

GEO is proposing a facility that is designed and built in full compliance of all applicable Federal and State codes and regulations. The proposed schedule for the required permits and approvals will be developed at a later date in conjunction with the authorities having jurisdiction over the project. The required permits and approvals include but are not limited to the following:

- Virginia Department of Environmental Quality, Ground Erosion Permit
- Virginia Erosion and Sediment Control Law, Regulations and Certification
- Virginia Storm Water Management Regulations
- Virginia Department of Transportation Land Use Permit
- Local Utilities Authority (water, sewer, electrical)
- Commonwealth of Virginia State Department of Health (VDH) Sewage Collection and Treatment Regulations
- Commonwealth of Virginia State Department of Health (VDH) Waterworks Regulations

Additionally the project must comply with the following codes and regulations:

- Virginia Uniform Statewide Building Code
- National Fire Protection Association (NFPA) Life Safety Code 101
- Virginia Department of Corrections Guidelines for Minimum Standards in Design and Construction of Correctional Facilities
- American Correctional Association (ACA) Standards for Adult Correctional Institutions, Fourth Edition

## d. Adverse Social, Economical and Environmental Impacts

GEO does not anticipate any negative impact on social, economical or environmental issues caused by the construction of the proposed facility. The proposed site was selected after analyzing alternatives sites, for the following factors:

- Relative strong amount of support for the facility on both county and community level.
- Reasonable site development costs.
- Site is well screened and remote with respect to existing residential areas.

- Site is free of significant environmental concerns.
- Availability of all necessary public services and utilities.

An Environmental Impact Report Part 1, was prepared under the Virginia Environmental Impact Report Act (Virginia Code 10.1-1188)

## e. Positive Social, Economic and Environmental Impacts

The construction of the new facility will bring many benefits to the community. In addition to the initial construction related local jobs and purchasing of locally available materials, the facility will offer permanent jobs opportunities as well as benefits to the local business community by the purchase of food, office supplies, furnishings, cleaning supplies, etc. The local utilities companies and the community of Drakes Branch and/or Mount Rogers will benefit from the additional revenues and upgrading of related roads and infrastructure.

## f. Work Schedule and Estimated Completion Date

**See the attached construction schedule**. This schedule would apply for either design "A" or "B".

## g. Contingency Plans

GEO does not anticipate any delays related to the design and construction of the facility. However, occasionally delays occur caused by acts of God, such as hurricanes, floods, etc. or other unforeseen conditions out of the control of the design-builder. In such a case or in the event that the VDOC may need in an emergency situation additional beds, GEO has additional emergency space available at the GEO-operated VDOC facility at Lawrenceville, VA approximately 60 miles away from the site or at the GEO facility managed under contract with the Federal Bureau of Prisons at Winton, North Carolina approximately 140 miles from the site, where a 20,000 sf industries building could accommodate up to 200 beds in an emergency.

## h. Timely Completion/Risk Liability

GEO has never failed to complete a project on schedule and is committed to design and build the facility, ready for occupancy on the agreed on completion date and assumes all reasonable and traditional risks for construction delays attributable to GEO design-build team.

## i. Legal Status/Opinion

The proposed correctional center will be for the Commonwealth's use. There are no known restrictions on usage. Additional information on ownership can be found in Section 3 (which, due to proprietary information, is being submitted under separate cover).

GEO currently operates the Lawrenceville Correctional Center under contract with the DOC and assumes current practices regarding legal liability, law enforcement, and operation will apply to the proposed facility.

## j. Project Phase-In

A partial opening is not anticipated. It is expected that upon substantial completion, GEO operational staff will start the final testing and shakedown of the facility and approximately thirty days later, upon final completion and Certificate of Occupancy, GEO will start processing the intake of inmates in three phases. Each phase will consist of five week intervals with 100 inmates per week being received at the Center. Each five week period will be followed by one week with no intake of inmates to allow for operational review and adjustment. The total intake should be completed and the Center should reach full occupancy within seventeen weeks.